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DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/966,819

Applicant(s)

JENNY ET AL.

Examiner

Michael D. Meucci

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to request for reconsideration filed 06 June 2005.

Response to Amendment

2. Examiner acknowledges amendments made to overcome objections to claims 5 and 16. These objections have been withdrawn.
3. Examiner acknowledges amendments made to overcome the 35 U.S.C. §112 rejections of claims 8-11, 13, and 16-20. These rejections have been withdrawn.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 8-10, 12, 14-15, 21, and 25 rejected under 35 U.S.C. 102(e) as being anticipated by Wu et al. (U.S. 6,370,620 B1) hereinafter referred to as Wu.

- a. As per claim 8, Wu teaches: determining a frequency that static content is requested (lines 52-54 of column 6); when the frequency of requests for static content exceeds a threshold, forwarding the request to the cache (lines 43-59 of column 6); wherein the content is obtained when unavailable in the cache by generating another

request for the content and forwards the request to another cache determined by hashing an identifier associated with the content (line 48 of column 4 through line 8 of column 5).

b. As per claim 9, Wu teaches: hashing the identifier associated with the content to obtain a value and forwarding the request to a cache associated with the value when the frequency of requests for static content is below the threshold (line 48 of column 4 through line 8 of column 5 and line 43 of column 6 through line 3 of column 7).

c. As per claim 10, Wu teaches: another request is forwarded to the content server when the content is unavailable from the other cache (lines 4-28 of column 6).

d. As per claims 12 and 25, Wu teaches: a forwarder that receives each request for content and forwards each request to at least one of a content server and a cache (line 48 of column 4 through line 8 of column 5); the content server is coupled to the forwarder wherein the content server sends content to the client in response to each request that is forwarded to the content server and the cache is coupled to the forwarder, wherein the cache sends content to the client in response to each request that is forwarded to the cache (line 48 of column 4 through line 8 of column 5 and lines 21-28 of column 6).

e. As per claims 14-15, Wu teaches: the forwarder is coupled to the content server over a wide area network/local area network; and the forwarder is coupled to the content server over a communications medium (line 47 of column 2 through line 14 of column 3 and Fig. 1).

f. As per claim 21, Wu teaches: the server uses a hash table to calculate the number of requests for the content (lines 44-61 of column 1 and line 48 of column 4 through line 8 of column 5).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Trout (U.S. 5,566,349) in view of Lamburt et al. (U.S. 6,374,241 B1) hereinafter referred to as Lamburt.

Trout teaches: receiving a request for content (lines 35-37 of column 4 and lines 19-28 of column 42) and determining at least one type of the requested content (lines 39-42 of column 11 and lines 61-64 of column 27); when the type of the requested content is dynamic, forwarding the request to a content server that enables access to the dynamic content (lines 10-11 of column 12); and when the type of the requested content is static, forwarding the request to a cache that enables access to the static content (lines 11-12 of column 12).

Trout fails to teach: a plurality of caches including at least one hot cache. However, Lamburt discloses: "The Data Query Cache 850, in this embodiment, generally includes a "hot" and "cold" cache," (lines 36-37 of column 27).

It would have been obvious to one of ordinary skill in that art at the time of the applicant's invention to have a plurality of caches including at least one hot cache. "In this embodiment, the caching technique implemented is the LRU (Least Recently Used) policy by which elements of the cache are selected for replacement in accordance with time from last use. These and other policies are generally known to those skilled in the art. Generally, the "hot" cache may include the most recently used items and the cold cache the remaining items," (lines 37-43 of column 27 in Lamburt). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have a plurality of caches including at least one hot cache in the system as taught by Trout.

8. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Trout and Lamburt, further in view of Factor et al. (U.S. 6,094,706 B1) hereinafter referred to as Factor.

Trout fails to teach: the hot cache caches static content when a frequency of requests for the static context exceeds a threshold. However, Factor discloses: "Once a particular component has been accessed more than a threshold number of times, new pathnames that contain this component may be added to the cache," (lines 52-54 of column 11).

It would have been obvious to one of ordinary skill in that art to have the hot cache cache static content when a frequency of requests for the static context exceeds a threshold. "This component may be added to the cache under the assumption that

the new pathnames will also be accessed frequently," (lines 54-56 of column 11 in Factor). It is for this reason that one of ordinary skill in that art at the time of the applicant's invention would have been motivated to have the hot cache cache static content when a frequency of requests for the static context exceeds a threshold in the system as taught by Trout and Lamburt.

9. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Trout and Lamburt, further in view of Guenthner et al. (U.S. 5,590,301) hereinafter referred to as Guenthner.

Trout fails to teach: when the static content is unavailable in the hot cache, forwarding the request to another cache in the plurality of caches. However, Guenthner discloses: "an internal address, including a cluster number, is sent to the address translator 18 as a request from the primary cache directed to the secondary cache 7 (which, of course, will forward the request to main memory if the requested information is not resident in the secondary cache at the time of the request)," (lines 21-26 of column 7).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to forward the request to another cache when the static content is unavailable in the hot cache. "Register 15 is merely a convenient representation of address interface circuitry in the primary cache of the CPU 11 by which an address generated by the CPU 11 may be transmitted, transformed in the address translator 18, as a request to the secondary cache 7. This condition occurs when information required

by the CPU 11 is not resident in at least one of the primary caches of the CPUs 11, 12, 13, 14 on the multiprocessor board 1. (Those skilled in the art will understand that, in many such multiprocessor configurations, it is possible for one CPU to "siphon" information from another CPU's primary cache)," (lines 18-28 of column 4 in Guenther). It is for this reason that one of ordinary skill in that art at the time of the applicant's invention would have been motivated to forward the request to another cache when the static content is unavailable in the hot cache in the system as taught by Trout and Lamburt.

10. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Trout and Lamburt, further in view of McCanne (U.S. 6,785,704 B1).

Trout fails to teach: when the static content is unavailable from any one of the plurality of caches, forwarding the request to the content server that enables access to the static content. However, McCanne discloses: "the cache serves the request, if it can, or forwards the request to the content server and then serves the client the content returned from the content server." (lines 63-65 of column 3).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to forward the request to the content server that enables access to the static content when the static content is unavailable from any one of the plurality of caches. "Caching can be either transparent or nontransparent. With transparent caching, the client makes a request of the content server and the network infrastructure intercepts the request if the cache can serve the request. With nontransparent caching,

the client makes the request of the cache (or more precisely, of a network node to which the cache is attached) and the cache serves the request, if it can, or forwards the request to the content server and then serves the client the content returned from the content server," (lines 57-65 of column 3 in McCanne). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to forward the request to the content server that enables access to the static content when the static content is unavailable from any one of the plurality of caches in the system as taught by Trout and Lamburt.

11. Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Trout and Lamburt, further in view of Kimura et al. (U.S. 6,415,359 B1) hereinafter referred to as Kimura.

Trout fails to teach: examining the request for an extension indicating that a process is performed in response to the request, wherein the process includes at least one of an application program and a script. However, Kimura discloses: "in the case of creating a new file in the portable information processing terminal device 10 in response to a request from another information processing device, the file management unit 102 first checks the attribute information (an extension and a file name, or other ID information indicating a file type, etc.) of that file which is attached to the creation request (step S71), and judges whether it is a file that should be stored into the cache 17 or not (step S72). An application program file that is executable on the portable information processing terminal device 10 or a file that can be processed by that

application has a high probability of being accessed in the disk access prohibited state during the battery driven mode so that such a file will be judged as a file that should be stored into the cache 17," (lines 49-62 of column 13).

It would have been obvious to one of ordinary skill in that art at the time of the applicant's invention to examine the request for an extension indicating that a process is performed in response to the request, wherein the process includes at least one of an application program and a script. "An application program file that is executable on the portable information processing terminal device 10 or a file that can be processed by that application has a high probability of being accessed in the disk access prohibited state during the battery driven mode so that such a file will be judged as a file that should be stored into the cache 17. In the case where the judgement cannot be made, it is also possible to inquire the user as to whether it is a file that should be stored into the cache 17 or not," (lines 57-65 of column 13 in Kimura). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to examine the request for an extension indicating that a process is performed in response to the request, wherein the process includes at least one of an application program and a script in the system as taught by Trout and Lamburt.

12. Claims 6-7 rejected under 35 U.S.C. 103(a) as being unpatentable over Trout and Lamburt, further in view of Dujari (U.S. 6,233,606 B1).

Trout fails to teach: the content includes information associated with a plurality of resource identifiers; and the resource identifiers are uniform resource locators (URLs).

However, Dujari discloses: "the content can be indexed by a unique lookup key, such as a Uniform Resource Identifier (URI), a compact string of characters for identifying an abstract or physical resource. Examples of URIs include URLs (Uniform Resource Locators), URNs (Uniform Resource Names), and other standard namespaces," (lines 28-33 of column 1).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the content include information associated with a plurality of resource identifiers; and have the resource identifiers as uniform resource locators (URLs). "A URI may be used as the lookup key to a cache, as can other names, such as a globally unique identifier (GUID)," (lines 33-35 of column 1 in Dujari). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the content include information associated with a plurality of resource identifiers; and have the resource identifiers as uniform resource locators (URLs) in the system as taught by Trout and Lamburt.

13. Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Wu as applied to claim 10 above, in view of Cohen et al. (U.S. 6,330,561 B1) hereinafter referred to as Cohen.

Wu teaches: another request is forwarded to the content server when the content is unavailable from the other cache (lines 4-28 of column 6).

Wu fails to teach: the content server forwards the other request for content to an additional cache. However, Cohen discloses: "Then the proxy server would forward a

request for validation with respect to the client requested resource and a request for validation with regard to one or more additional resources in the proxy cache that were from the same resource server," (lines 30-34 of column 2).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the content server forward the other request for content to an additional cache. "This approach is a benefit to the proxy cache in the sense that it helps the proxy cache determine the validity of certain of its contents at an earlier time," (lines 38-40 of column 2 in Cohen). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the content server forward the other request for content to an additional cache in the system as taught by Wu.

14. Claims 26, 16-17, and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Wu as applied to claim 12 above, in view of Lamburt.

a. As per claim 26, Wu fails to teach: the cache further comprises a regular cache and a hot cache.

However, Lamburt discloses: "The Data Query Cache 850, in this embodiment, generally includes a "hot" and "cold" cache," (lines 36-37 of column 27). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the cache further comprise a regular cache and a hot cache. "It should generally be noted that in this particular embodiment, the "hot" cache is implemented as storing the data in random access memory. This may be distinguished from the storage

medium associated with the "cold" cache representing those items which are determined, in accordance with caching policies such as the LRU, to be least likely to be accessed when compared with the items in the hot cache which are determined to be more likely to be accessed," (lines 48-56 of column 27 in Lamburt). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the cache further comprise a regular cache and a hot cache in the system as taught by Wu.

b. As per claim 16, Wu teaches: the information includes at least one of where the request is generated, the frequency of requests for the content, and the nature of the content requested (lines 16-28 of column 7).

c. As per claim 17, Wu teaches: the forwarder is structured to forward requests to the content server when the information indicated that the request is generated by the regular cache (lines 20-28 of column 6).

d. As per claim 19, Wu teaches: forwarding requests when not found in primary cache (lines 20-28 of column 6).

Wu fails to teach: the forwarder is further structured to forward requests to the regular cache when the information indicates that the request is generated by the hot cache. However, Lamburt discloses: "It should generally be noted that in this particular embodiment, the "hot" cache is implemented as storing the data in random access memory," (lines 48-50 of column 27).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to utilize the "hot" cache as the primary cache in the system of Wu.

"This may be distinguished from the storage medium associated with the "cold" cache representing those items which are determined, in accordance with caching policies such as the LRU, to be least likely to be accessed when compared with the items in the hot cache which are determined to be more likely to be accessed," (lines 50-56 of column 27 in Lamburt). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to utilize the "hot" cache of Lamburt as the primary cache in Wu, and to forward the request to the regular cache when the information indicates that the request is generated by the hot cache.

15. Claim 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Wu in view of Lamburt as applied to claim 26 above, in view of Cohen and Sharma (U.S. 6,591,341 B1).

Wu teaches: a regular cache and forwarding requests if content is not found in cache.

Wu fails to teach: a hot cache and an additional cache, wherein the hot cache, the regular cache, and the additional cache are arranged in a hierarchical order for receiving each forwarded request for content from the forwarder.

However, Lamburt discloses: "It should generally be noted that in this particular embodiment, the "hot" cache is implemented as storing the data in random access memory," (lines 48-50 of column 27). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have a hot cache. "This may be distinguished from the storage medium associated with the "cold" cache representing

those items which are determined, in accordance with caching policies such as the LRU, to be least likely to be accessed when compared with the items in the hot cache which are determined to be more likely to be accessed," (lines 50-56 of column 27 in Lamburt). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have a hot cache in the system as taught by Wu.

Cohen discloses: "Then the proxy server would forward a request for validation with respect to the client requested resource and a request for validation with regard to one or more additional resources in the proxy cache that were from the same resource server," (lines 30-34 of column 2). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have an additional cache. "This approach is a benefit to the proxy cache in the sense that it helps the proxy cache determine the validity of certain of its contents at an earlier time," (lines 38-40 of column 2 in Cohen). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have an additional cache in the system as taught by Wu.

Sharma discloses: "If the request was a cache miss in the second data array, the request may be forwarded to another level of memory hierarchy, such as another cache or a system memory (lines 32-35 of column 5 and Fig. 5). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to arrange the cache in a hierarchical order for receiving each forwarded request for content from the forwarder. "In either case, when it was determined that there was a cache miss in the

first data array, the one or more instructions that were tentatively processed may be replayed," (lines 35-37 of column 5 in Sharma). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to arrange the cache in a hierarchical order for receiving each forwarded request for content from the forwarder in the system as taught by Wu.

16. Claim 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Wu and Lamburt as applied to claim 16 above, in view of Factor.

Wu fails to teach: the forwarder is further structured to forward requests to the hot cache when the information indicates that the rate of requests exceeds a threshold.

However, Lamburt discloses: "It should generally be noted that in this particular embodiment, the "hot" cache is implemented as storing the data in random access memory," (lines 48-50 of column 27). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to forward requests to a hot cache. "This may be distinguished from the storage medium associated with the "cold" cache representing those items which are determined, in accordance with caching policies such as the LRU, to be least likely to be accessed when compared with the items in the hot cache which are determined to be more likely to be accessed," (lines 50-56 of column 27 in Lamburt). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to forward requests to a hot cache in the system as taught by Wu.

Factor discloses: "Once a particular component has been accessed more than a threshold number of times, new pathnames that contain this component may be added to the cache," (lines 52-54 of column 11).

It would have been obvious to one of ordinary skill in that art to forward requests to a hot cache when the rate of requests exceeds a threshold. "This component may be added to the cache under the assumption that the new pathnames will also be accessed frequently," (lines 54-56 of column 11 in Factor). It is for this reason that one of ordinary skill in that art at the time of the applicant's invention would have been motivated to forward requests to a hot cache when the rate of requests exceeds a threshold in the system as taught by Wu.

17. Claim 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Wu and Lamburt as applied to claim 26 above, in view of Sharma.

Wu fails to teach: the hot cache and the regular cache are located on the same device.

However, Lamburt discloses: "The Data Query Cache 850, in this embodiment, generally includes a "hot" and "cold" cache," (lines 36-37 of column 27). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to utilize the "hot" cache as the primary cache in the system of Wu. "This may be distinguished from the storage medium associated with the "cold" cache representing those items which are determined, in accordance with caching policies such as the LRU, to be least likely to be accessed when compared with the items in the hot cache

which are determined to be more likely to be accessed,” (lines 50-56 of column 27 in Lamburt). It is for this reason that one of ordinary skill in the art at the time of the applicant’s invention would have been motivated to utilize the “hot” cache of Lamburt as the primary cache in Wu.

Sharma discloses: “Many computer, systems use multiple levels of caches to cache data from a memory device. For example, a computer system may have a level one cache (L1) and a larger level two cache (L2), in addition to an even larger RAM memory,” (lines 14-17 of column 1). It would have been obvious to one of ordinary skill in the art at the time of the applicant’s invention to have multiple caches on the same device. “The L1 cache typically contains a copy of information that was previously loaded from RAM by the processor, and the L2 cache typically contains both a copy of information in the L1 cache and other information that had been loaded from RAM by the processor less recently than the information in the L1 cache,” (lines 18-24 of column 1 in Sharma). It is for this reason that one of ordinary skill in the art at the time of the applicant’s invention would have been motivated to have multiple caches on the same device in the system as taught by Wu.

18. Claims 22-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Wu as applied to claim 12 and 22 respectively, in view of Dujari.

Wu fails to teach: the content includes information associated with a plurality of resource identifiers; and the resource identifiers are uniform resource locators (URLs). However, Dujari discloses: “the content can be indexed by a unique lookup key, such as

a Uniform Resource Identifier (URI), a compact string of characters for identifying an abstract or physical resource. Examples of URIs include URLs (Uniform Resource Locators), URNs (Uniform Resource Names), and other standard namespaces,” (lines 28-33 of column 1).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the content include information associated with a plurality of resource identifiers; and have the resource identifiers as uniform resource locators (URLs). “A URI may be used as the lookup key to a cache, as can other names, such as a globally unique identifier (GUID),” (lines 33-35 of column 1 in Dujari). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the content include information associated with a plurality of resource identifiers; and have the resource identifiers as uniform resource locators (URLs) in the system as taught by Wu.

Response to Arguments

19. Applicant's arguments filed 06 June 2005 have been fully considered but they are not persuasive.

20. (A) In regards to claim 8, applicant contends that Wu does not teach “when the frequency of requests for static content exceeds a threshold, forwarding the request to a cache.” The examiner respectfully disagrees.

As to point (A), the applicant believes Wu describes a technique in which a request for a web object is forwarded to a cache cluster if the reference count for requests for the object does *not* exceed a particular threshold and that if the threshold is exceeded, the request is not forwarded. However, the front-end router servicing requests for that object locally in its own cluster includes forwarding the request to its web cache server (item 802 in Fig. 9) in it's local cluster (item 801 in Fig. 9). The system clearly discloses that the request is handled locally when the threshold is exceeded, wherein "the front-end router 803 then distributes the requests among the web cache servers 802 in the cluster" (see lines 41-42 of column 6). See also lines 43-46 of column 6 for further explanation.

21. (B) In regards to claim 12, applicant contends that Wu does not describe an originating web server that sends an object to a client. The examiner respectfully disagrees.

As to point (B), the examiner points to line 65 of column 4 through line 8 of column 5 disclosing: "FIG. 6 shows the flow diagram of steps taken by a web cache server 4 when an object is received, such as from an originating web server 1. In block 501, a copy of the object is cached at the top of the local LRU stack 101 following the procedures described in FIG. 4. Then the web cache server 4 checks to see if the object was requested by a sibling web cache server 4, as is shown in block 502. If yes, block 504, a copy of the object is returned to the sibling web cache server 4. If not, block 503, then the object must have been requested by a browser module 9 on a **client** 8, and a

copy of the object is returned to the requesting client 8.” The supporting evidence clearly shows that content will be sent to the client in response to the request for content.

22. (C) In regards to claim 1, applicant contends that Trout does not teach: “receiving a request for content and determining at least one type of the requested content.” The examiner respectfully disagrees.

As to point (C), the applicant believes that Trout is non-analogous art and that Trout refers to users issuing data resource requests to a multitasking computer system. The examiner points to lines 1-3 of column 12 which states: “One of the features of a preferred embodiment of the invention is the storage of data in a relational database for fast retrieval and response,” and on lines 19-20 of column 42: “The IO outputs to External Sources requesting Reference Data information and data files.” The examiner also points particularly to lines 25-28 of column 42, which states: “The DM receives External User requests and Database files from External Sources. The External User requests are to obtain data from archived files. The external files are to provide data from external database sources.” These three citations clearly show that Trout is from the same field of endeavor as the instant application. Also, Trout teaches determining a data type of the requested content on lines 27-32 of column 37 stating: “Expressiveness of DML--The C3M2 system shall include a DML that allows users to easily isolate various subsets of the data held in a database. The DML shall provide for data representing multiple tables (or record types, or object types) to be meaningfully joined

in a retrieval transaction.” These reasons clearly show that Trout demonstrates all elements of claim 1.

23. (D) In regards to claim 1, applicant contends that Trout does not teach: “forwarding the request to a content server that enables access to the dynamic content.” The examiner respectfully disagrees.

As to point (D), the applicant believes that Trout merely describes a data storage processor this is configured to retrieve data from the processor’s own cache memory. The examiner points to lines 1-5 of column 12 in Trout which states: “One of the features of a preferred embodiment of the invention is the storage of data in a relational database for fast retrieval and response.” See lines 7-10 of column 12 describing retrieving data *into* cache memory, and also lines 10-22 of column 12 clearly describing dynamic data retrieval. As to the applicant’s arguments that “content includes information that may be found on one or more WWW servers such as Web page,” the examiner notes that although the claims are read in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

24. (E) In regards to claim 1, applicant contends that the previous Office Action has not provided any explanation of why motivation to combine Trout and Lamburt would be present, given that Trout and Lamburt are concerned with different fields of endeavour.

As to point (E), the examiner has already show Trout to be analogous art to the instant application. Lamburt is considered analogous art because it also deals with content request over a network; see abstract disclosing: "Disclosed is a system for performing online data queries. The system for performing online data queries is a distributed computer system with a plurality of server nodes each fully redundant and capable of processing a user query request. Each server node includes a data query cache and other caches that may be used in performing data queries. The data query, as well as request allocation, is performed in accordance with an adaptive partitioning technique with a bias towards an initial partitioning scheme." As such, Lamburt clearly teaches "at least one hot cache" and includes proper motivation as well as being from the same field of endeavour.

25. (F) The remainder of applicant's arguments are directed towards dependent claims but rely on arguments already addressed in this office action.

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Domenikos et al. (U.S. 5,838,910) discloses requesting data from remote servers.

Pitts et al. (U.S. 6,085,234) discloses remote file services network-infrastructure cache.

Logue et al. (U.S. 6,330,606 B1) discloses dispatching document requests in a proxy.

Pitts (U.S. 6,505,241 B2) discloses network intermediate node cache serving as a proxy to client node to request missing data from server.

Primak et al. (U.S. 6,598,077 B2) discloses a system for dynamic content routing and forwarding requests.

Garrison (U.S. 2001/0011349 A1) discloses requesting data from remote database.

Vermeulen (U.S. 2001/0042171 A1) discloses requesting data from a distributed file system through a proxy server and caching files.

27. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Meucci at (571) 272-3892. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell, can be reached at (571) 272-3868. The fax phone number for this Group is 571-273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.meucci@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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PRIMARY EXAMINER